新北市106年度國中小英語教師國際短期教育訓練
分享報告

Applications of Mobile Learning Devices and Apps in Teaching

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2017

MLDs

- **MLDs** (mobile learning devices): laptops, personal digital assistants (PDAs), tablet personal computers (tablet PCs), cell phones, and e-book readers.
- the MLDs in this presentation means laptops & tablet PCs

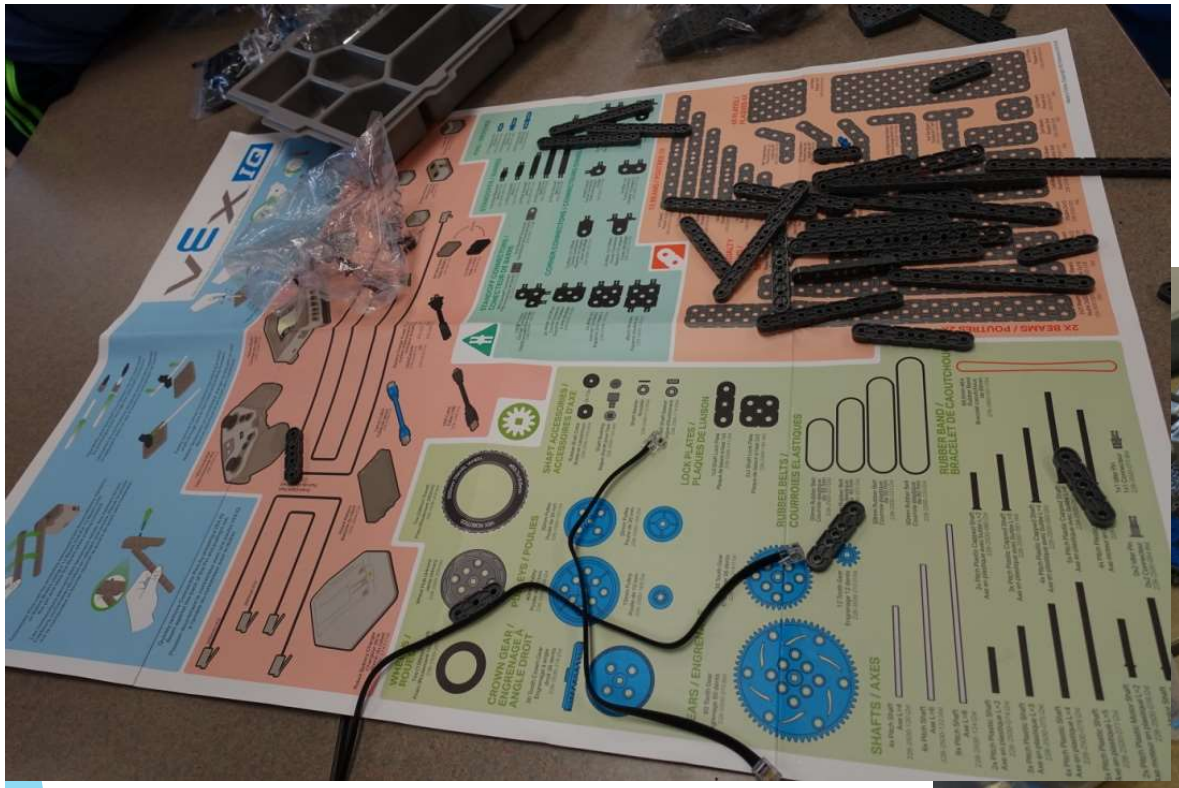
Outline

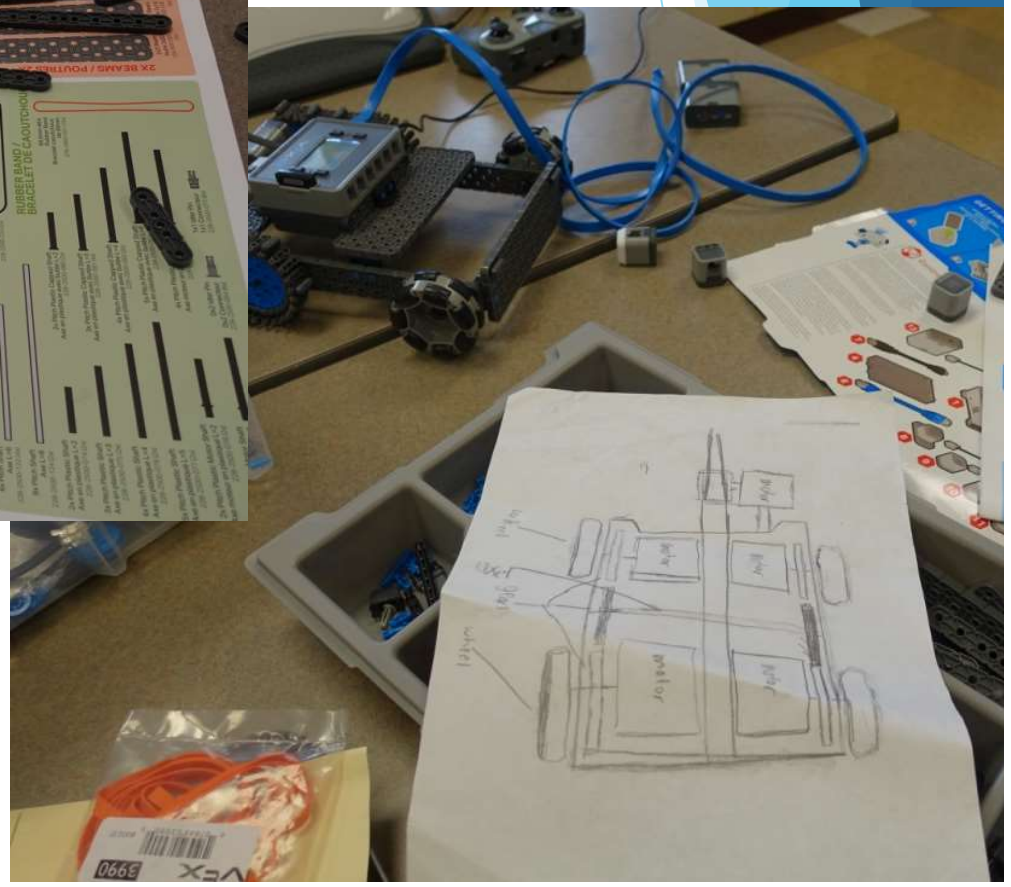
- How MLDs and Apps Are Applied in Teaching Activities
  - Applying MLDs in Teaching
    - Robotics Design, Makey Makey Piano, Creative Writing, Social Studies' PPT, Science Experiment, Online Information Research
  - Applying Apps in Teaching
    - Schoology, ClassDojo, Raz-Kids, Kahoot!, Flipgrid, Scratch
- Prerequisites for A Successful Application of MLDs in Teaching
- Advantages of Applying MLDs and Learning Apps in Teaching
- Reflection and Conclusion

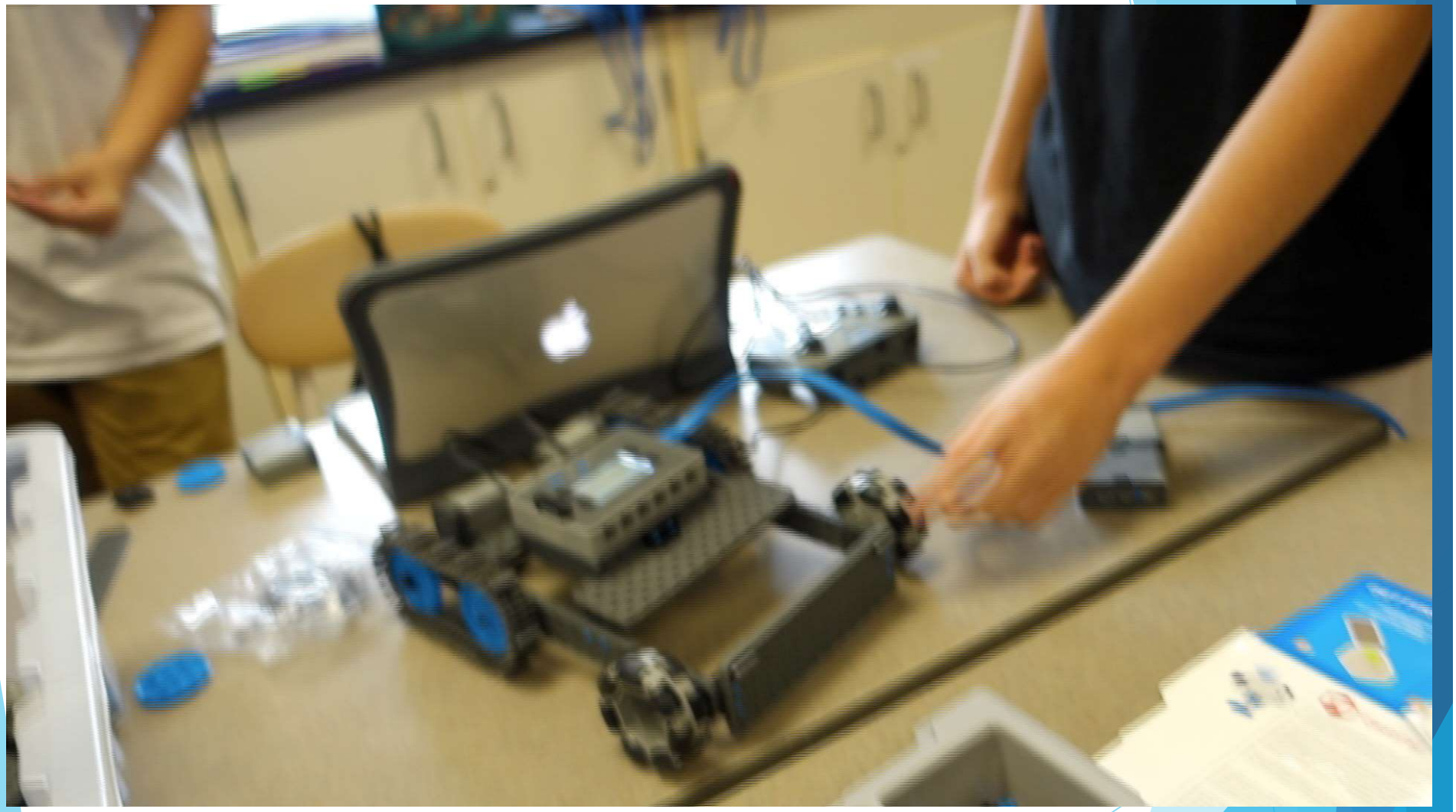
Applying MLDs in Teaching: Robotics Design

- Howell Township Middle School's robotics class
- group work
- build a robotic truck that could be operated by a remote controller
- students used laptops to connect with the truck that they were building
- modify their programming on the laptop to meet the needs of their new design

Applying MLDs in Teaching:
Robotics Design

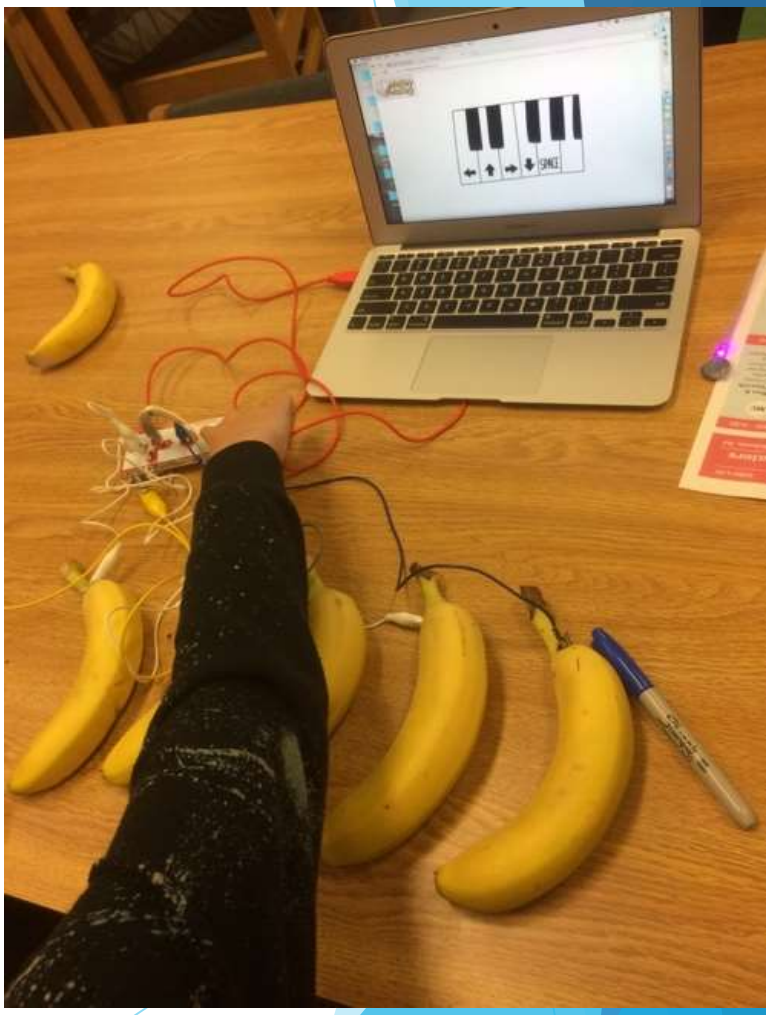




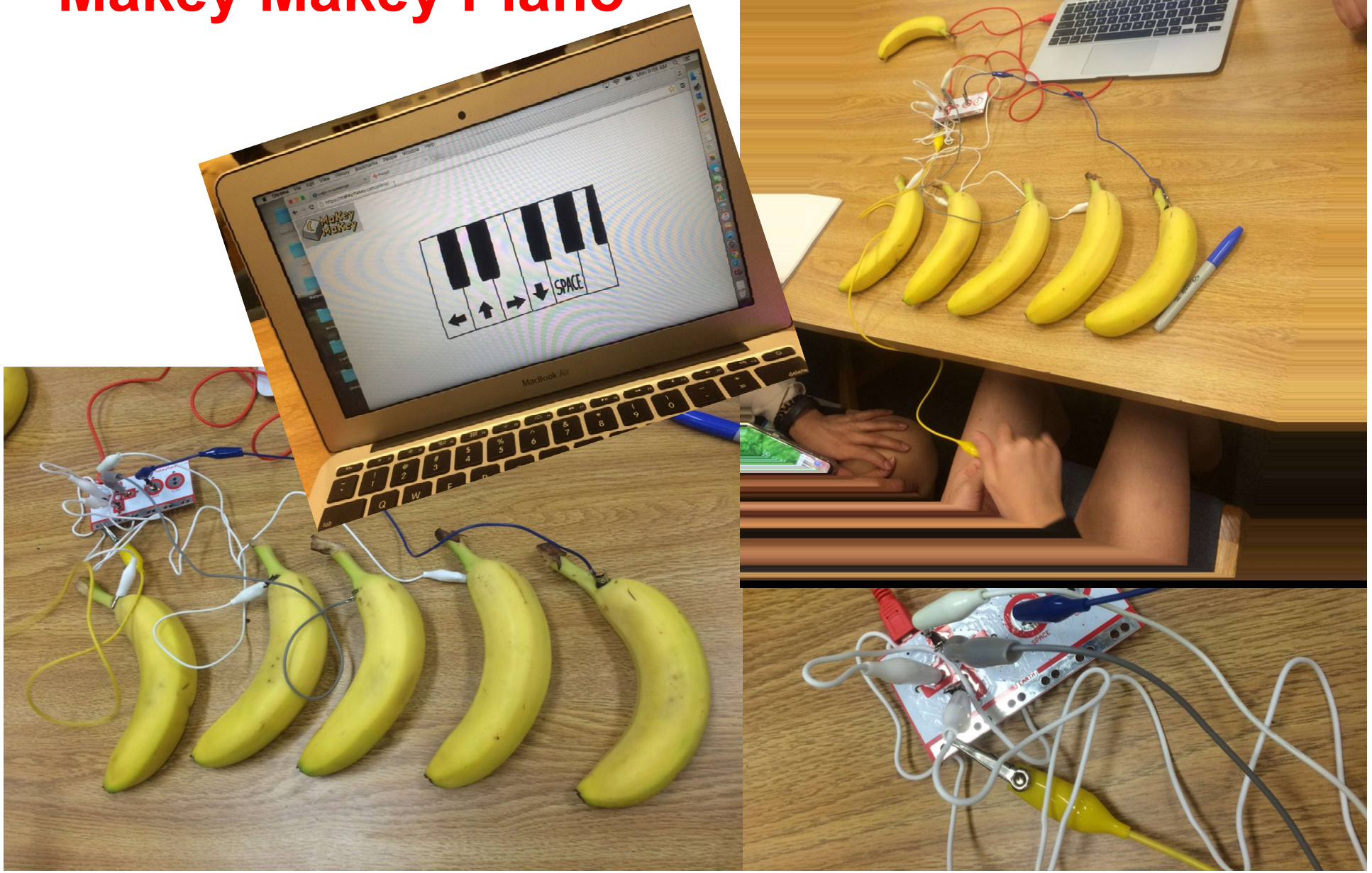


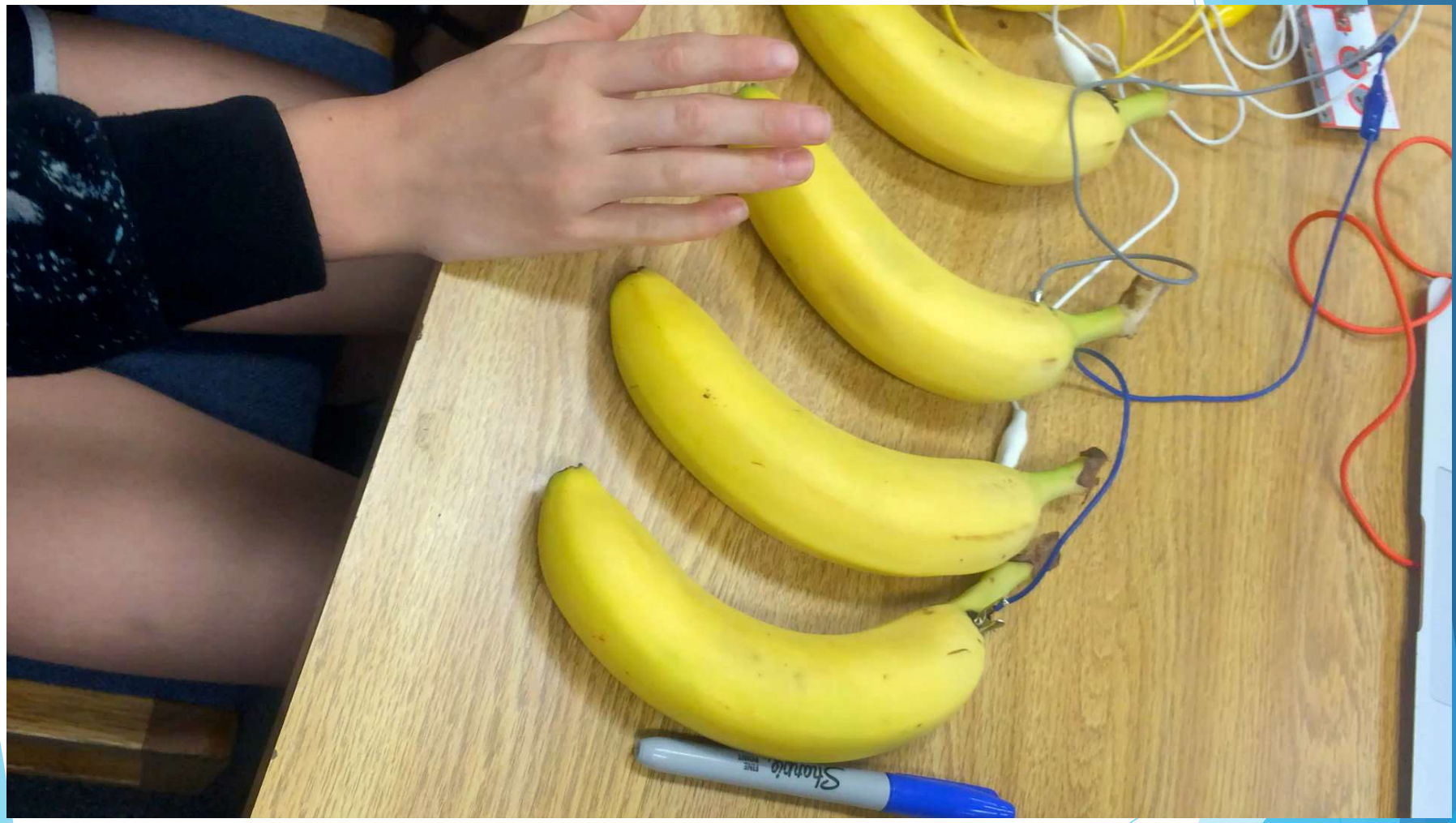
Applying MLDs in Teaching: Makey Makey Piano

- https://makeymakey.com/piano/
- Ramtown Elementary School
- Laptop connected to a Makey Makey metal board with an USB
- → alligator-clip wires connected the Makey Makey board and five bananas
- → completed the circuit
- → touched banana
- → the laptop thought we were pressing a key from the laptop's keyboard
- → controlled the Makey Makey piano website to make the corresponding piano key sound



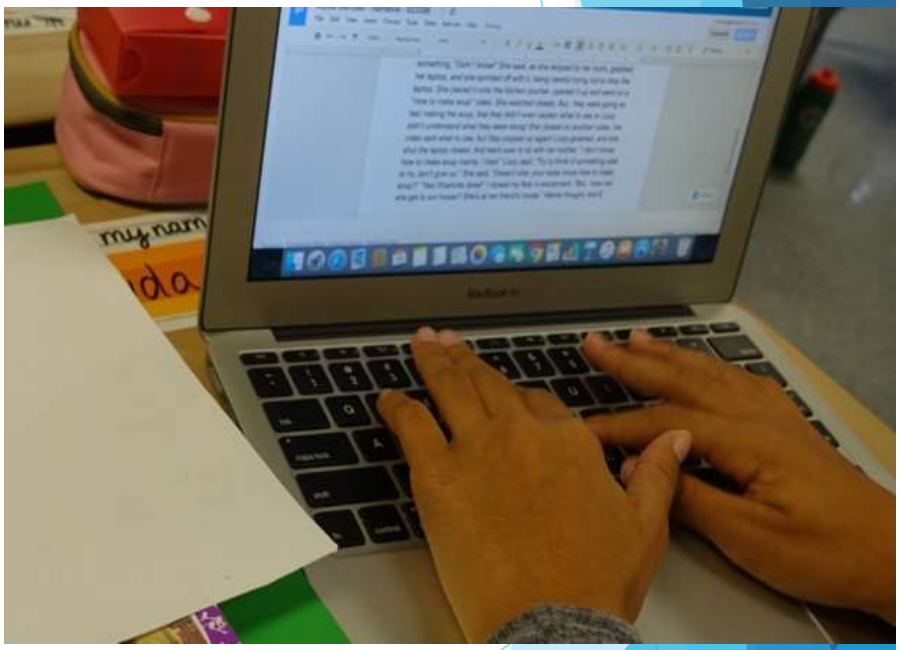
Applying MLDs in Teaching:
Makey Makey Piano




Sharpie

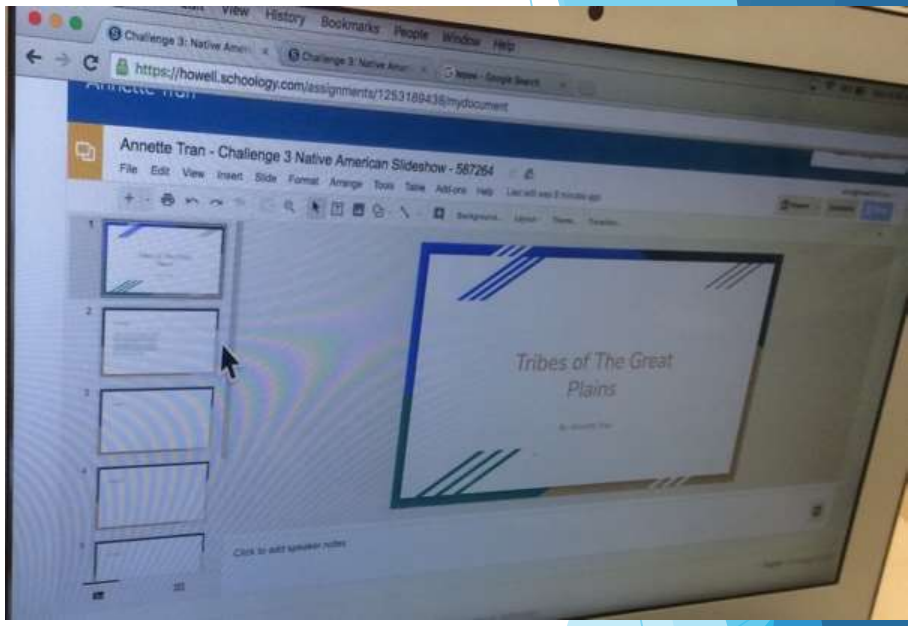
Applying MLDs in Teaching: Creative Writing

- using Google Docs on their laptop to work on their novel writing
- the teacher could view and edit everyone's writing online
- easier to edit students' writings using a computer:
  - flexibility to delete, add, and copy-and-past words anywhere in the writing
  - scribbling mess-free.



Applying MLDs in Teaching: Social Studies' PPT

- a social studies class at Ramtown Elementary School
- answer the questions posted online by making Power Point slides on Google Docs
- choose a Native American tribe and read about the it on their textbook
- find related pictures online for Power Point presentation
- students working on the same tribe could sit together to discuss

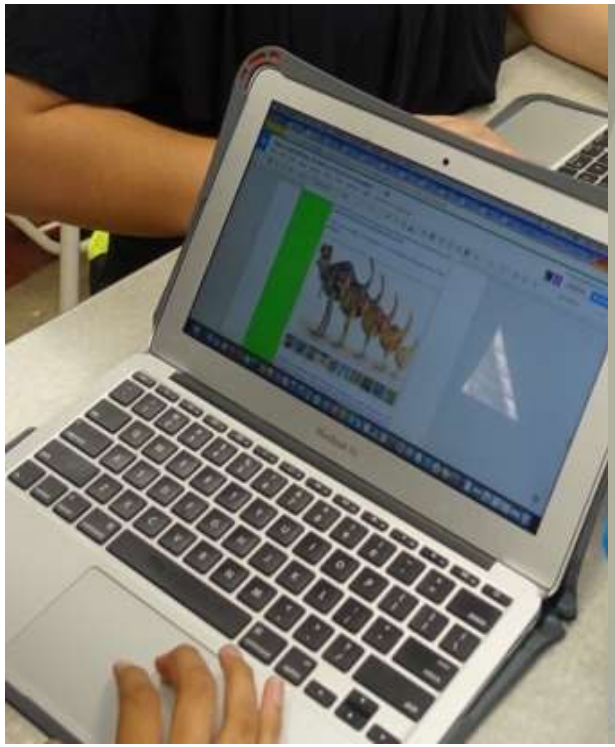


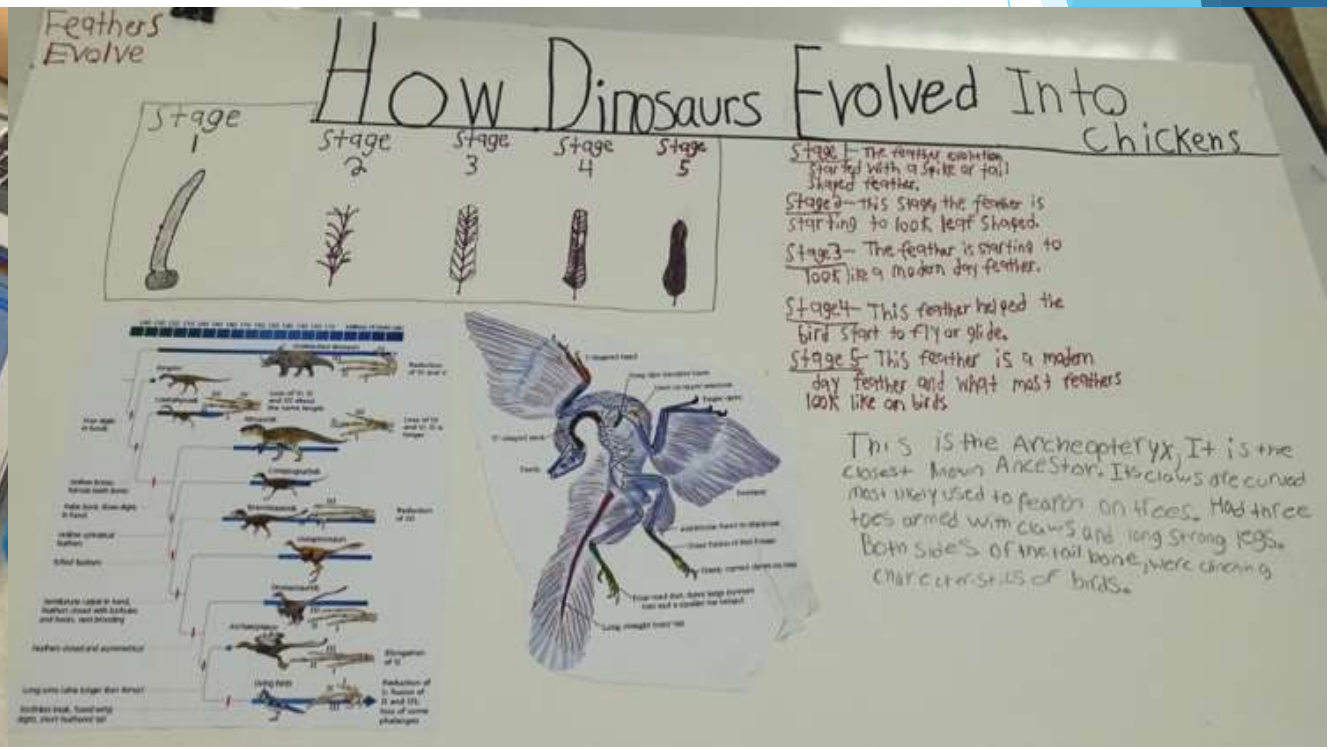
Applying MLDs in Teaching: Science Experiment

- a science class at Howell Middle School
- students were working on different tasks and topics related to science
- a group used their laptops to help them model the experiment on pressure, then wrote down their findings on their worksheet

Applying MLDs in Teaching: Online Information Research

- a science class at Howell Middle School
- students worked in groups to find information on their laptop and work on their group poster about dinosaurs' evolution





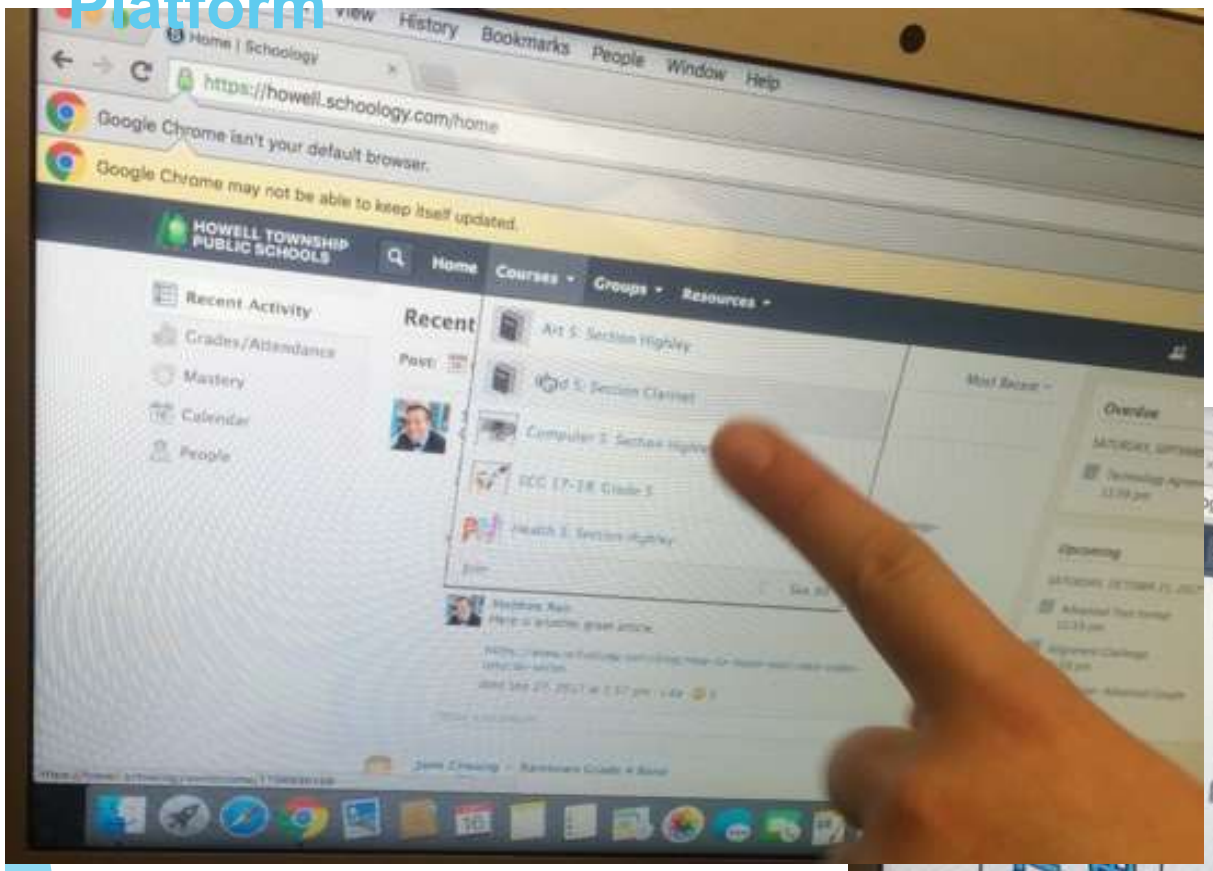
Applying Apps in Teaching:

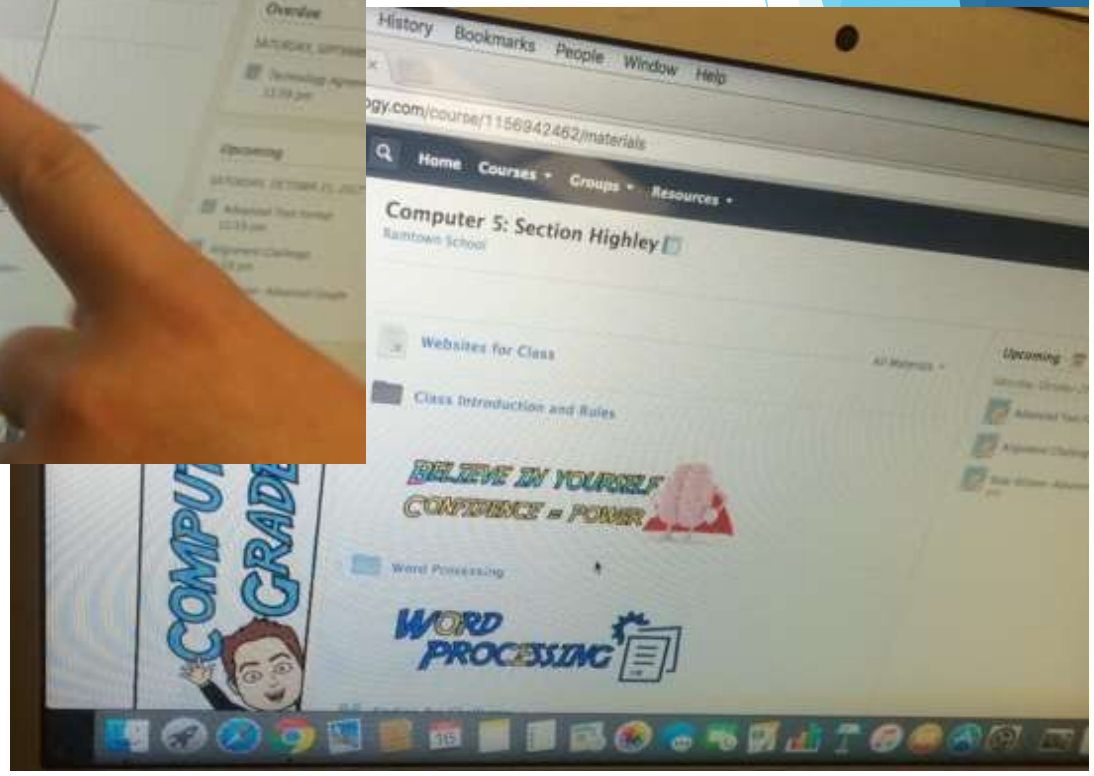
Schoology – Learning Management Platform

- https://www.schoology.com
- free & cross-device website/App for learning management
- almost every school I visited used Schoology
- useful and user-friendly tool
- a platform that connects classroom management, online learning and social network together
- teachers can manage their own courses - uploading learning materials in any forms (videos, PDFs, Power Points...), homework assignments, announcements, students' test, & grades
- every student has their own account to log in and add all the courses they take
- there is a digital folder for each course.
- students can download learning materials & upload homework

Applying Apps in Teaching:

Schoology – Learning Management Platform



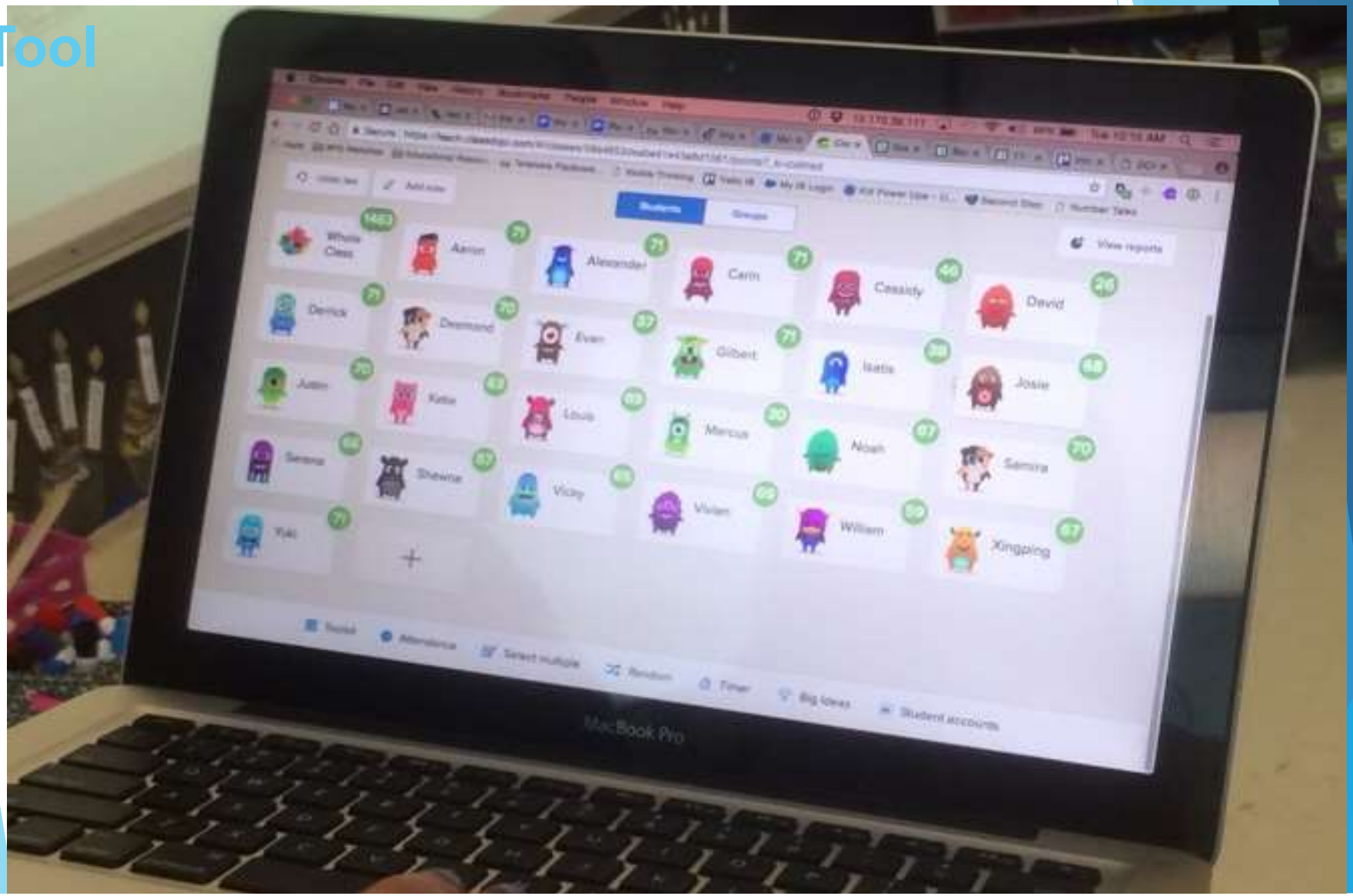


Applying Apps in Teaching: ClassDojo–Classroom Management Tool

- https://www.classdojo.com/zh-tw/?redirect=true
- free cross-device website/App for classroom management
- build classroom community - connect with parents, students, and other teachers:
  - teachers give positive reinforcements - digital high-five/medals
  - students add photos and videos on their digital portfolios to share their learning and projects with others
  - teachers can share photos, videos, and announcements of the classroom, or privately message any parent without having to exchange phone numbers (messages can be translated into any language)
  - teachers can create their school community
- Josiah Quincy Elementary School - students love ClassDojo!

Applying Apps in Teaching:

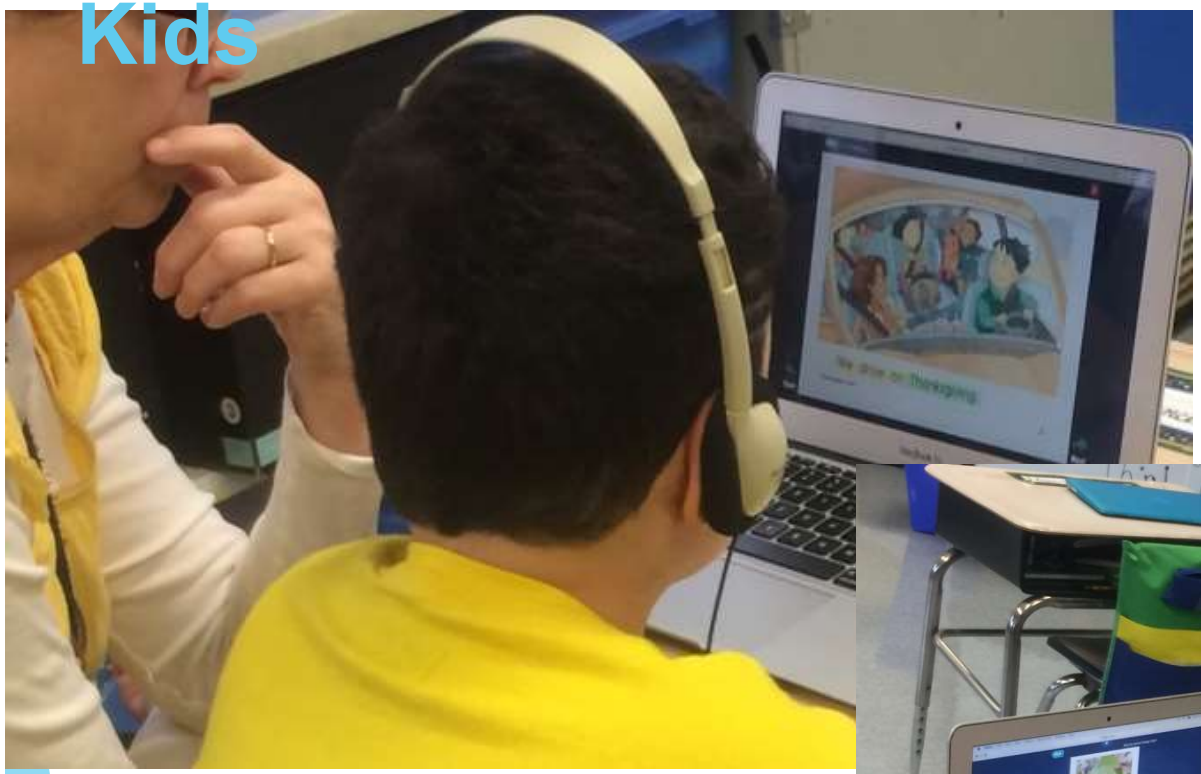
ClassDojo–Classroom Management Tool



Applying Apps in Teaching: Raz-Kids – Comprehensive Leveled Reading Resources for Kids

- https://www.raz-kids.com
- cross-devices comprehensive leveled reading resources platform for kids
- hundreds of leveled reading eBooks & comprehensive questions online
- 29 levels of difficulty
- listen & read at their own level & pace
- record themselves while reading out loud
- after each reading, take a quiz online to check comprehension level
- teachers plan reading activities according to their current needs
- digital management tools to track students' reading progress
- a reading class at Ramtown Elementary School had students do their individual readings on Rad-Kids
- helped teachers solve the problem of level differences in the classroom
- made differentiated instruction & assessment possible

Applying Apps in Teaching: Raz-Kids – Comprehensive Leveled Reading Resources for Kids



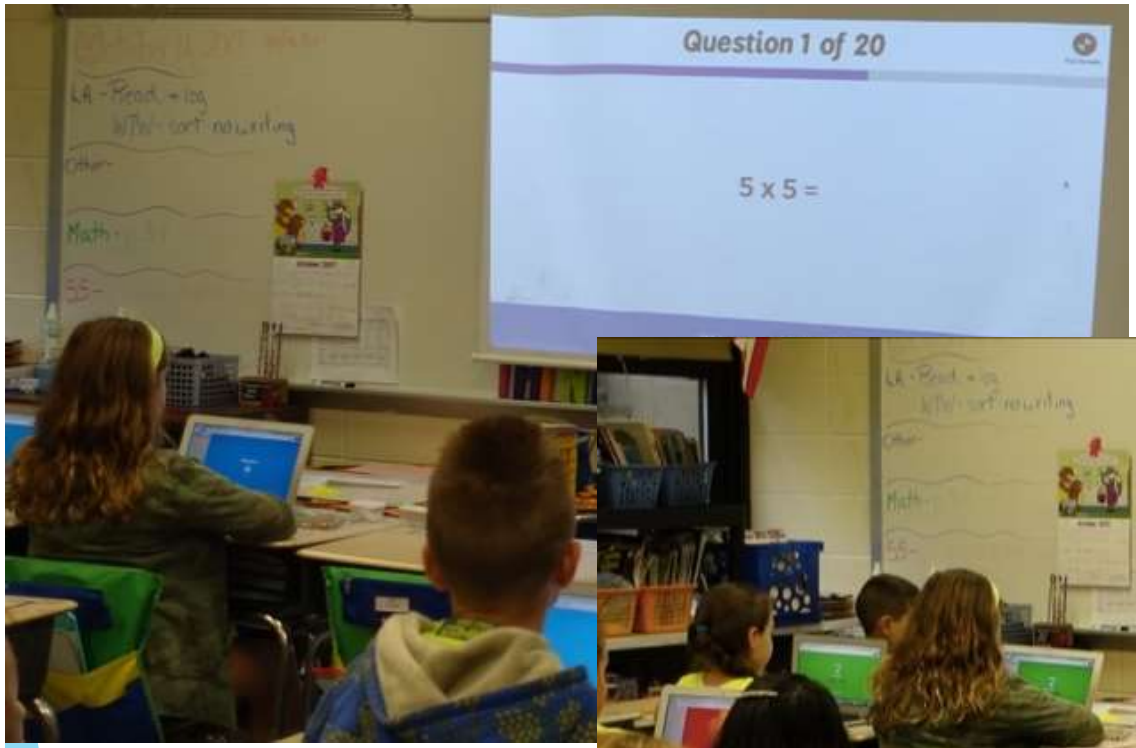
Applying Apps in Teaching:

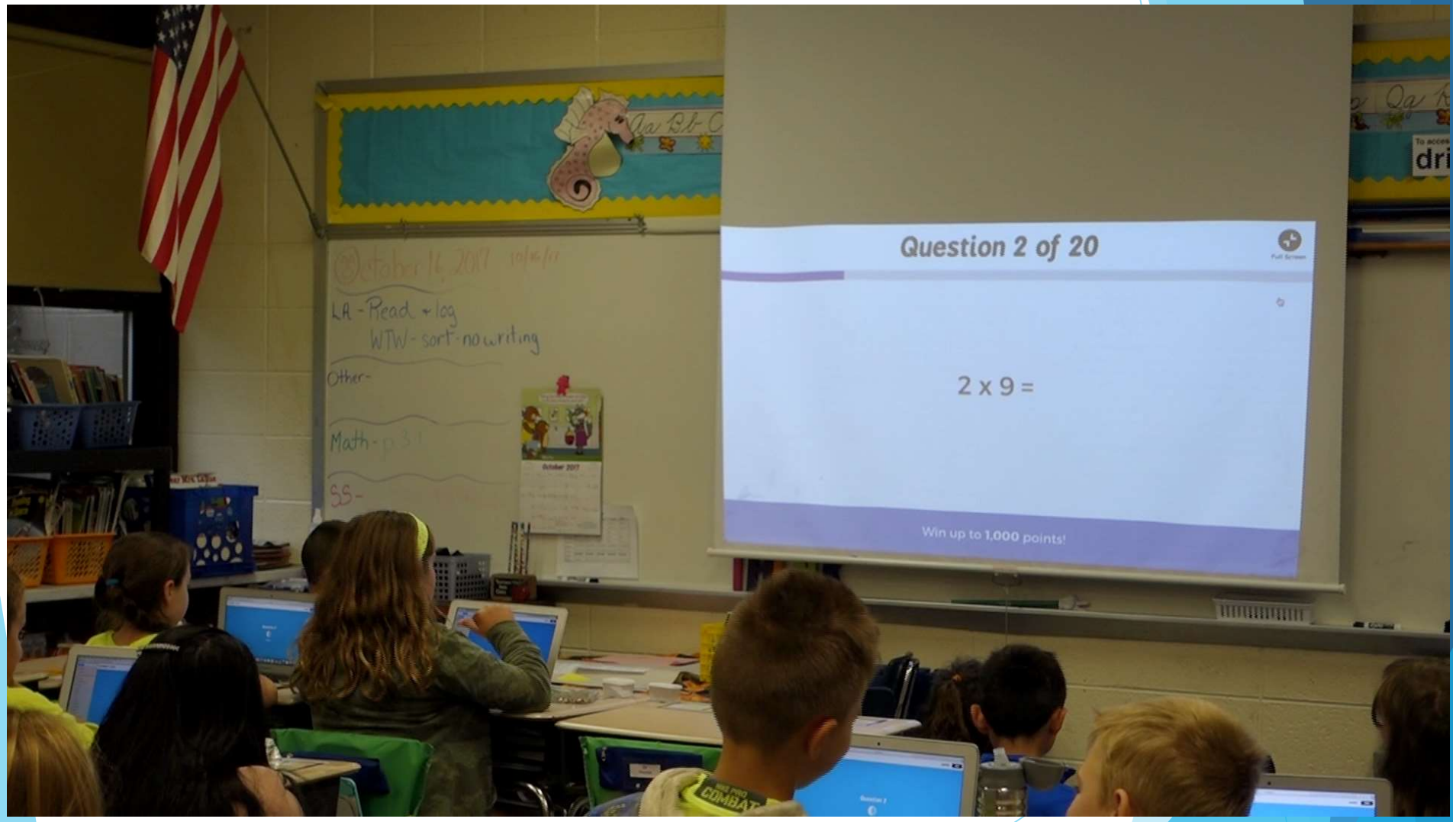
Kahoot!–Game Based Learning Platform

- https://kahoot.com
- free and cross-device online platform for learning
- students play learning games with the whole class by using their MLDs
- teachers create their multiple choice quizzes for any subject and the whole class answer on their MLDs
- Kahoot! provides immediate answer feedback – show everyone's answers & make a statistic frequency chart of it
- a math class at Ramtown Elementary School - students were engaged and excited

Applying Apps in Teaching:

Kahoot!–Game Based Learning Platform

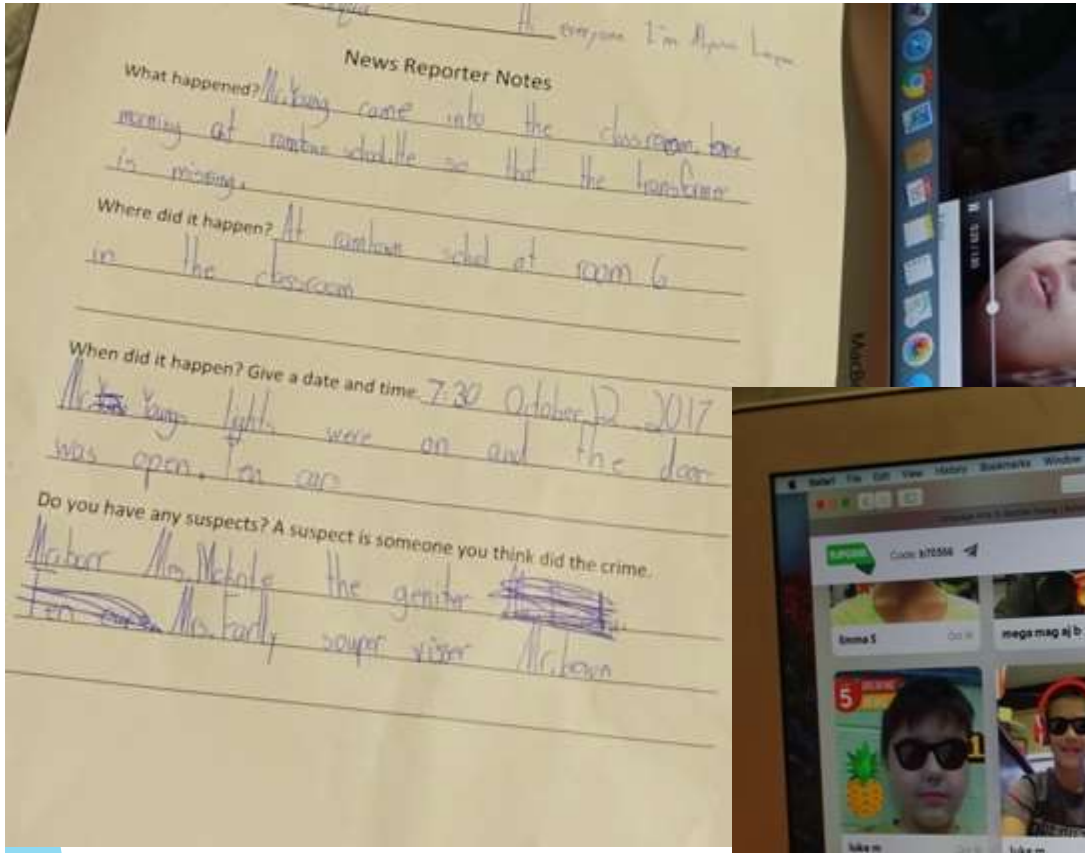


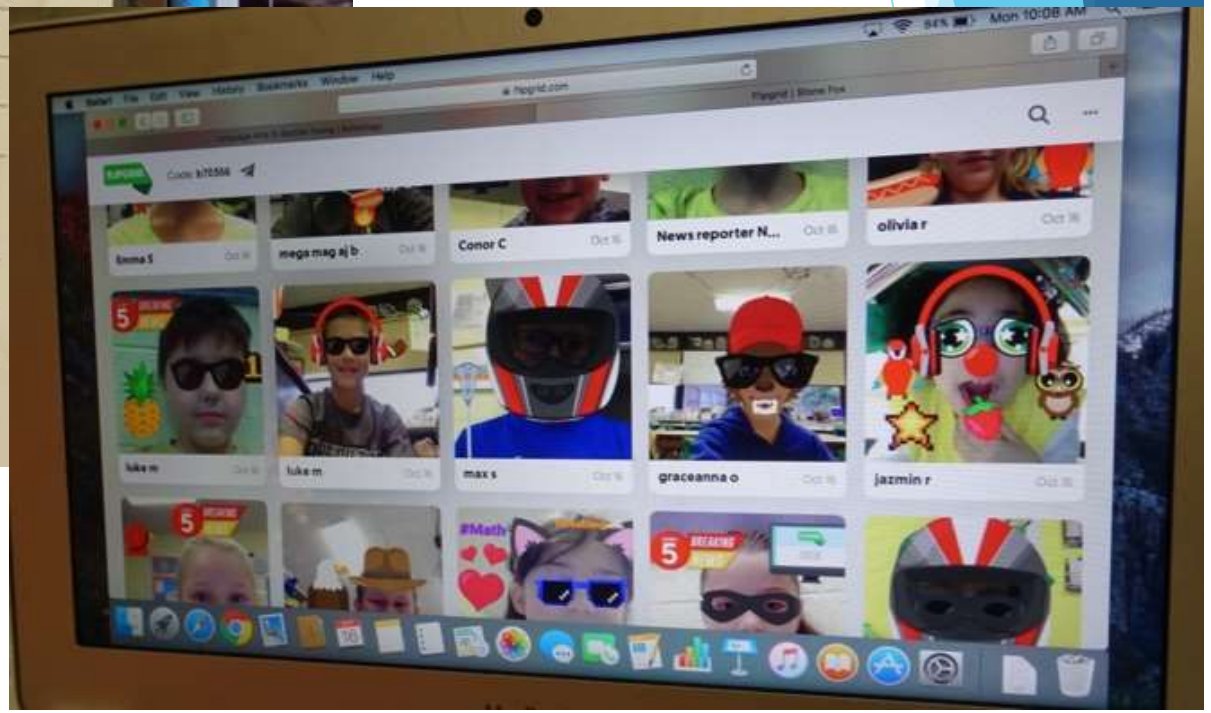

Question 2 of 20
2 x 9 =
Win up to 1,000 points!
LA - Read - log
WTW - sort - no writing
Other -
Math - p. 3-1
SS -

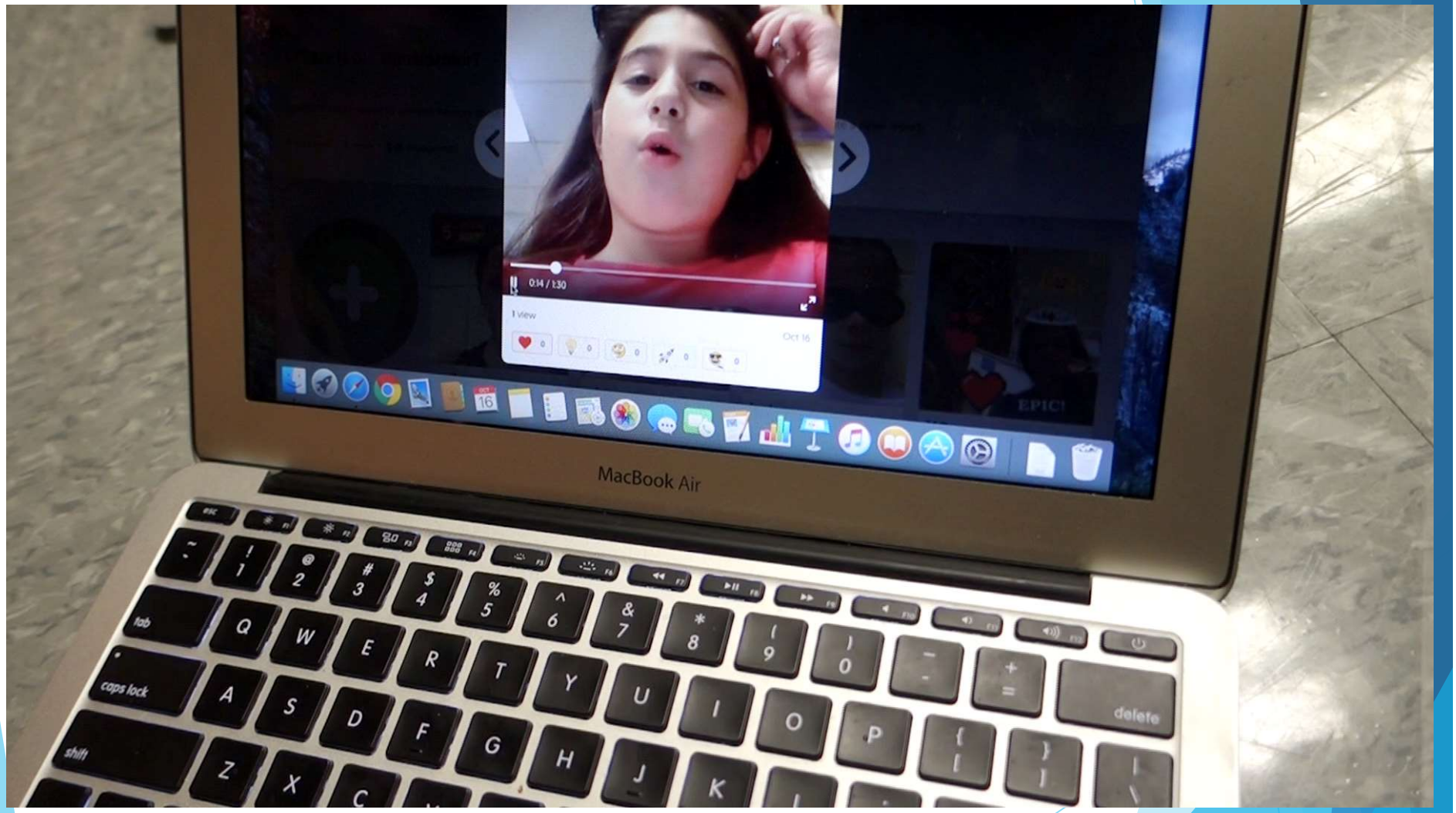
Applying Apps in Teaching: Flipgrid – Video Discussion Community for Classrooms

- https://info.flipgrid.com
- free online video discussion platform for classrooms
- teachers add any discussion topic
- students response by making a video message of themselves talking about the topic
- view others' video responses and make further discussions
- at Ramtown Elementary School - students recorded a video message about who they think took away the mascot and the reasoning behind it (wrote down their thoughts beforehand to be prepared and structured when responding)
- good for student engagement and formative assessment

Applying Apps in Teaching:
Flipgrid – Video Discussion Community for Classrooms



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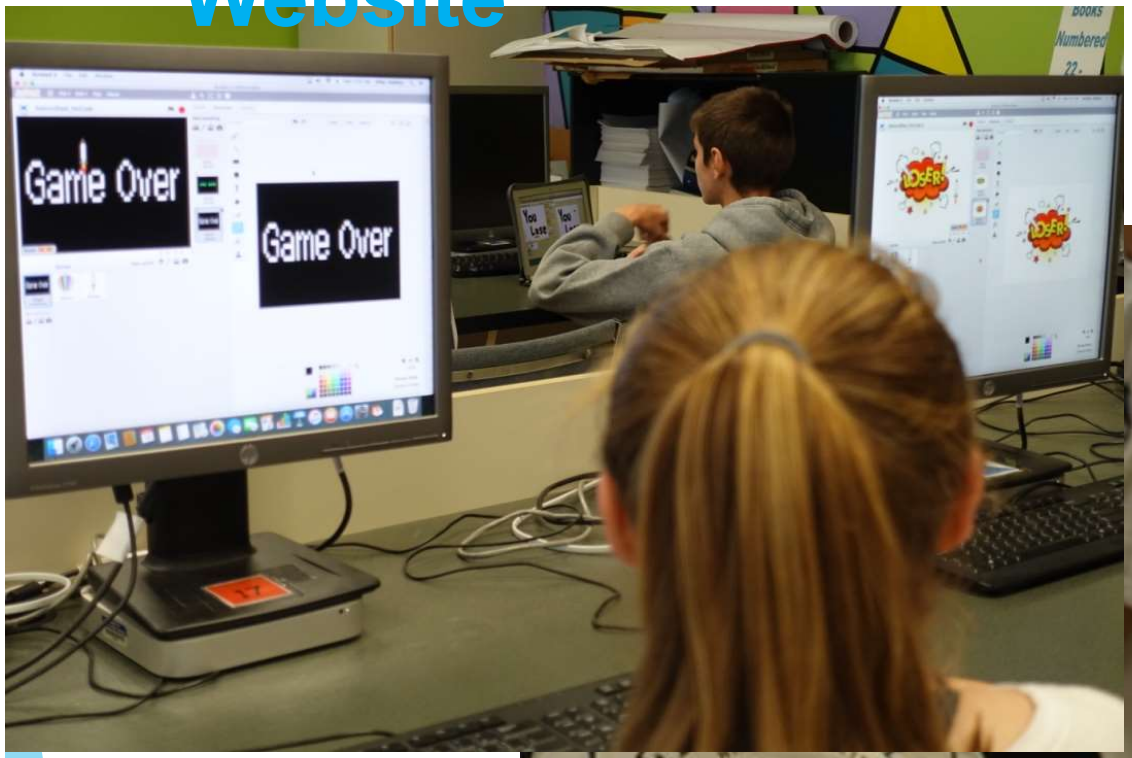
1 view
Oct 16
EPIC!
MacBook Air
tab
caps lock
shift
delete

Applying Apps in Teaching: Scratch – Programming Website

- https://scratch.mit.edu
- free programming website - program games, animations, interactive stories → share it online
- 40 + languages
- designed for kids from 8-16 (adults also benefit from it)
- a computer class at Howell Middle School- students use Scratch to program their own game
- learn creative thinking, systematical reasoning, and collaboration skills

Applying Apps in Teaching: Scratch – Programming Website



Prerequisites for A Successful Application of MLDs in Teaching

1. teachers well trained and ready
2. cultivate students' digital citizenship - tech department, teachers, & parents should regulate and monitor students' use of MLDs
   - e.g. only hand out MLDs to the students whose parents attended the notification meeting
   - e.g. take away students' MLDs as a warning for not obeying the regulations
3. modify classroom management (e.g., strict about the rules of using MLDs)
4. more freedom in designing teaching & less pressure on teaching schedules
5. carefully design teaching activities (not all teaching activities have to involve MLDs)
6. prepare good iPad or laptop protectors

Advantages of Applying MLDs and Learning Apps in Teaching

- portability
- individualized learning
- motivate students
- improve higher-order thinking and social skills
- and more…

Conclusion

- MLDs make teaching and learning more convenient and effective.
- versatile & useful MLDs + well-designed teaching activities → student-centered learning, cooperative learning, and differentiated instructions
- students motivated to discuss, make video responses, create games, make PPTs via MLDs and learning Apps
- parents could monitor their children's learning
- MLDs provide useful assistance for teaching and learning only when applied with enough preparations

Reflection

- What roles should teachers take in the future?
- Even without MLDs for every student, we can still learn from American teachers' core teaching values.
- How can I apply it to my teaching?
- Teachers and students are the most important ones in the the teaching scene because MLDs only act as assistants not replacements.